National Aeronautics and Space Administration

MARSHALL STAR

Serving the Marshall Space Flight Center Community

Feb. 24, 2011

Discovery set to launch Feb. 24 on its final mission

By Sanda Martel

Space shuttle Discovery is scheduled to launch Feb. 24 on an 11-day mission to the International Space Station. Launch time is 3:50 p.m. CDT from NASA's Kennedy Space Center, Fla.

"The propulsion team at the Marshall Space Flight Center is ready to support the launch of the space shuttle Discovery this week," said Steve Cash, manager of the Shuttle Propulsion Office. "Our readiness is due to the thorough, exhaustive and exemplary work of the External Tank Project Office; Marshall's Engineering Directorate and Safety and Mission Assurance teams; and Lockheed Martin engineers at NASA's Michoud Assembly Facility in New Orleans.

"The Marshall teams gave up holidays and weekends to conduct stress analysis and stringer material and mechanical tests in support of the external tank stringer investigation during the past three months. These Marshall and Michoud

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STS-133 crew members include, top row, from left, Commander Steve Lindsey, Pilot Eric Boe and Mission Specialist Michael Barratt; bottom row, Mission Specialists Steve Bowen, Nicole Stott and Alvin Drew.

Office of Human Capital rolls out agency workforce transition tool

By Amie Cotton

Are you an employee looking for reassignment? Are you a supervisor looking for a quick and easy way to fill jobs? Check out NASA's new workforce transition tool!

With the retirement of the Space Shuttle Program as well as major program changes throughout the agency, NASA has launched a new workforce transition tool to provide an integrated system to assist managers and employees with the work force restructuring necessary

*See **Tool** on page 5*

Marshall mentors needed!

New intern opportunities sought across center; summer application period to end March 1

By Rick Smith

Ask Mona Miller what month it is, and you can see her stop and count backward in her head – tracking back from the summer months she'll be focused on from now until the waning days of May.

Miller is a project manager in the Marshall Space Flight Center's Academic Affairs Office. She leads planning and preparations for the annual influx of summer interns – some 200 college undergraduates and graduate students who will join the Marshall work force for 10 weeks, enhancing their classwork with practical, real-world experience.

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A look back: Space shuttle Discovery

Compiled by Sanda Martel

STS-1 lifted off April 12, 1981, marking the first launch of a reusable spacecraft. Space shuttles have repeatedly carried people into orbit; launched, recovered and repaired satellites; conducted cutting-edge research, and built the largest structure in space, the International Space Station.

As the program nears its 30th anniversary, the Marshall Star will feature images and highlights from past shuttle missions.

Depicting Discovery's 39 mission patches, this picture hangs in Kennedy's Launch Control Center.

Although all five vehicles that have comprised NASA's space shuttle fleet are unmatched in achievements, space shuttle Discovery is unique. It has flown to space more times and carried more crew members than any other craft. It was the first spacecraft to retrieve a satellite and bring it back to Earth. It has visited two space stations. It launched a telescope that has seen deeper into space and farther back in time than ever before. And twice it has demonstrated the United States' will to persevere in space with Return to Flight missions.

In 38 trips to space, Discovery has spent 352 days in orbit, almost a full year. Discovery has circled Earth 5,628 times, all the while speeding along at 17,400 mph. It has traveled almost 143 million miles, equal to 288 round trips to the moon, or about one-and-one-half trips to the sun.

Discovery has carried 246 people to space, including the first female to pilot a spacecraft, the oldest person to fly in space, the first African-American to perform a spacewalk, the first Russian cosmonaut to fly on an American spacecraft and the first sitting member of Congress to fly in space.

On its second mission, through a spectacular series of spacewalks using the free-flying Manned Maneuvering Unit jetpacks, two malfunctioning satellites were retrieved and tucked into Discovery's payload bay for the return trip home.

One-time cold war adversaries found common ground above the Earth aboard Discovery in February 1994 on mission STS-60, as Sergei Krikalev of Russia became the first cosmonaut to fly on a U.S. spacecraft. Discovery moved the fledgling partnership closer on mission STS-63 one year later as it became the first shuttle to rendezvous with the Russian Mir Space Station. Discovery's other visit to Mir came on mission STS-91 in June 1998, a docking that ended the Shuttle-Mir Program.

The Hubble Space Telescope was launched during shuttle Discovery's STS-31 mission in April 1990 and it also flew two of the five servicing missions to Hubble – STS-82 in February 1997 and STS-103 in December 1999.

Discovery flew NASA's Return to Flight Missions, STS-26, in September 1988 following the Challenger accident and STS-114 in July 2005 following the Columbia accident.

It took four years to build Discovery, the third shuttle orbiter built. Named for past sailing ships of exploration, it rolled out of its Palmdale, Calif., assembly plant in October 1983 and was delivered via a piggyback airplane flight to Kennedy Space Center the next month.

Shuttle Discovery began its spaceflight career Aug. 30, 1984, with the STS-41D mission.

In 1985, Discovery became the only shuttle orbiter to fly four times in a single year. One of those missions, STS-51D, counted the first sitting member of Congress among its crew, U.S. Sen. Jake Garn of Utah.

In October 1998, Discovery flew a science mission that again broke barriers on Earth and in space. The crew included the oldest astronaut to fly to space – astronaut John Glenn, who at age 77 made his second trip to orbit on Discovery's STS-95 mission. In 1962, Glenn became the first American to orbit Earth. In addition to other duties with the STS-95 crew, Glenn was a test

*See **Anniversary** on page 4*

THE FACE OF MISSION SUCCESS IS: Virginia Tickles

Aerospace technologist in the Engineering Cost Office

- **Organization:** Office of Strategic Analysis & Communications
- **Joined NASA**: 1989
- **Education**: Bachelor's degree in mechanical engineering, Tuskegee Institute, Tuskegee, Ala., 1985; master's degree in systems engineering management, Florida Institute of Technology in Melbourne, 1999; doctorate in philosophy and urban higher education, Jackson State University, Jackson, Miss., 2005
- **Responsibilities**: My job responsibilities focus on performing cost analysis, assessments and trade studies to support the mission of the Marshall Space Flight Center and the agency.
- **What is your favorite memory at Marshall?** My favorite memory is during the days of second-generation vehicles when I worked in the Operations Cost Analysis area. Engineers and experts from different centers joined us physically and remotely in the Collaborative Engineering Center in Building 4203, where we analyzed several iterations of conceptual launch vehicles. Though we worked long hours and many weekends, I had the opportunity to meet the best and the brightest in their areas of expertise. The feeling I got from witnessing and being a part of those great minds at work was truly an awesome experience!
- **How do you hope to contribute to Marshall's future goals?** By continuing to educate and mentor young future scientists, technologists, engineers and mathematicians in an effort to prepare a more diverse work force.
- **What is something people would be surprised to find out about you?** My husband and I have six daughters, ages 17-24, and while working full time and finishing my doctorate, we had 22 family members live with us for months during the Hurricane Katrina ordeal. Because of that experience, we are more united than ever. In fact, we're thinking about expanding our family by adopting two boys.

Marshall to commemorate Black History Month on Feb. 24

The Marshall Space Flight Center will hold its annual Black History Month celebration Feb. 24 at 10:30 a.m. in Morris Auditorium in Building 4200.

Marshall Center Deputy Director Gene Goldman will welcome participants. Bobby Watkins, director of the Office of Strategic Analysis & Communications, will introduce keynote speaker Dexter Brooks, director of federal sector programs for the U.S. Equal Employment Opportunity Commission in Washington.

Live music will be provided by Kathy Rice, a procurement analyst in the Office of the Chief Information Officer; and program analyst Gloria Caldwell and engineer Kim Jones, both in the Engineering Directorate. Huntsville artist and Marshall digital technician Dwight Pope will display original works of art in the Building 4200 lobby.

For more information, call Willie Love, assistant director of the Office of Diversity & Equal Opportunity, at 544-0088.

Obituaries

Herbert Woolf, 92, of Huntsville died Jan. 26. He retired from the Marshall Center in 1977 as a construction and main superintendent. He is survived by his wife, Frances Woolf.

Russell David Walker, 85, of Huntsville died Feb. 9. He retired from the Marshall Center in 1980 as a technical management engineer. He is survived by his wife, Juanita Cope Walker.

Elton E. McDonald, 89, of Decatur died Feb. 10. He retired from the Marshall Center in 1985 as an aerospace engineer. He is survived by his wife, Nell Bryan McDonald.

Elizabeth Lyons, 49, of Huntsville died Feb. 11. She was a program analyst in the Safety & Mission Assurance Directorate. She is survived by her husband, Robert Wooten.

Douglas Eugene Andrews, 78, of Athens died Feb. 15. He retired from the Marshall Center in 1976 as an aerospace engineering technician. He is survived by his wife, Frances Morrison Andrews.

NASA College Scholarship Fund now accepting applications from NASA dependents

The NASA College Scholarship Fund Inc., a nonprofit organization managed by Johnson Space Center in Houston, will award up to five scholarships to qualified NASA dependents pursuing studies in science and engineering fields.

The fund began in 1982 by Pulitzer Prize-winning author James A. Michener, and since then, 146 scholarships have been awarded.

Visit http://nasapeople.nasa.gov/NASAScholarship/schopp.htm for eligibility requirements and to download the application form.

The deadline to apply is March 31. For more information, contact Bill Mayo at 544-7220 or visit the website above.

Anniversary *Continued from page 2*

subject for a host of experiments that studied aging.

In October 2000, Discovery launched on the 100th mission of the Space Shuttle Program, a flight to the new and growing International Space Station on mission STS-92.

On its final flight – STS-133 – Discovery will deliver a final module to the U.S. segment of the station, the Leonardo Permanent Multipurpose Module, as well as the first humanoid robot to fly in space, Robonaut2. The new module will be a storeroom and provide additional research space. Robonaut2 is a technology demonstration to learn how humanoid robots can assist crews in orbit. Discovery also will carry a host of spare equipment to be stored aboard the complex. Befitting the milestones that have punctuated Discovery's career, its final visit to the station will coincide with the 10-year anniversary of a permanent human presence aboard the outpost.

For photographs dating back to the early days of NASA's most experienced orbiter, visit http://www.nasa.gov/mission_pages/shuttle/flyout/multimedia/discovery/tribute_discovery.html.

Martel, an AI Signal Research Inc. employee, supports the Office of Strategic Analysis and Communications.

Classified Ads

To submit a classified ad to the Marshall Star, go to Inside Marshall, to "Employee Resources," and click on "Marshall Star Ad Form." Ads are limited to 15 words, including contact numbers. No sales pitches. Deadline for the next issue, March 3, is 4:30 p.m. Thursday, Feb. 24.

Miscellaneous

Hobnail leather and wood swivel office chair, Townhouse Galleries, $100. 256-351-1754

Kingsize waterbed, softside, complete, $250. 256-881-0663 or 256-652-2978

Blue blazer, size 18, regular/32 Husky pants, $30 obo; Chaps 38S navy blazer, $30 obo. 256-880-1544

Queen Sleigh Bed, Amish-made, solid oak, seven-drawer dresser w/mirror, nightstands, $1,500/set. 256-431-2886

iPad 32GB, Wifi/3G, unlimited data plan, Zagg cover, Otterbox defender case, USB/SD adapters, $800 obo. 256-457-5823

Korg, SP 250 digital piano and seat, $400. 256-881-3680

Red Washburn X50-Pro electric guitar, Seymour Duncan pickups, $400. 256-655-6293.

Two-ton engine lift, floor unit on rollers, $125. 423-341-4393

Xbox 360 drums and guitars. 256-464-5686

Body Craft Crosstrainer ECT 2500, $800. 256-509-9792

Kenmore dehumidifier, $125..256-655-0393

Dining room set, leaf, six chairs, $915. 256-961-7963

Vehicles

2007 Ford Five Hundred Limited, loaded, navigation system, 87k miles, $10,000. 256-931-4144

2003 Beetle, $5,500. 256-603-1341

2003 Buick LS, four door, many extras, 105k miles, $5,250. 256-534-2025

2000 Lincoln Continental, all power, leather, CD, VIN: 1LNHM-97V2YY830050, 148,550 miles, $3,995. 256-837-0996

1998 GMC LWB white pickup, six cylinder, 200k miles, $4,000. 256-468-9377

1998 Stingray RS180, fish/ski, new 140hp, vests, other equipment, $9,500 obo. 256-640-6427

1979 Honda 50, $450; gas-powered scooter, $125. 256-655-0393

Wanted

Buy or borrow 8mm video camera. 256-895-9520

Students interested in obtaining beginner to advanced scuba diver certification. 256-651-9909

32-inch exterior door to install pet entrance. 256-883-2757

Houses/offices to clean, available evenings/weekends. 256-777-8595 leave message

CPAP device. 256-527-8116

Found

Pocket knife, north walkway to Building 4200, Feb. 15; Knit ski cap, basement hallway of Building 4200. 256-544-4680

Tool *Continued from page 1*

to support NASA's current and future mission. This tool enables NASA centers to more effectively manage the transition process, provide work force reports and facilitate a successful transition of employees from impacted programs to follow-on assignments.

"The workforce transition tool will simplify the transition process for both employees and managers by offering a direct path to job opportunities and will enable job movement around the center," said Tereasa Washington, director of the Marshall Space Flight Center's Office of Human Capital.

Located behind the Marshall Center's firewall, the tool provides all civil servants with an employee profile made up of information from various HR systems including Competency Management System (CMS), SATERN, Federal Personnel Payroll System (FPPS) and Electronic Position Description System (ePDS). Employees can update their personal profile and search for reassignment or developmental opportunities – such as details based on their skill set, competencies and grade.

The tool is not designed to identify promotion opportunities. These vacancies will continue to be posted through the normal competitive placement plan process using USAJOBS at http://jobsearch.usajobs.opm.gov/agency.aspx.

Supervisors can post vacancies using the tool, review applications online and conduct side-by-side comparisons of potential candidates including viewing competencies, skills, position information and program certifications. Selections also can be made electronically. The Office of Human Capital will manage the workforce transition tool including all job postings, candidate qualifications and selection.

While the tool is available to all Marshall employees and managers, the initial emphasis will be on employees of the Shuttle Propulsion Office, Ares Projects and Science & Mission Systems Office, as well as those in the other organizations who are currently charging time to Shuttle or Constellation Program work.

"Our office advocates employees taking an active role in their career planning activities," added Washington. "In this regard, employees are encouraged to ensure that their profile is complete and use the workforce transition tool to seek opportunities. This will allow them to indicate an interest in other areas of the center and be more visible to hiring managers in those areas who may have opportunities matching their specific skill sets."

The Workforce Transition Tool was available beginning Feb. 22. Employees can access their profiles and managers can enter opportunities. To access the system, visit the NASA HR Portal at https://hr.nasa.gov/ and click on workforce transition tool. For more information and training, contact your supervisor, administrative officer or human resources representative. For administrative or technical support, contact Susan Gentile at 4-5902 or Wendy Sullivan at 4-4945.

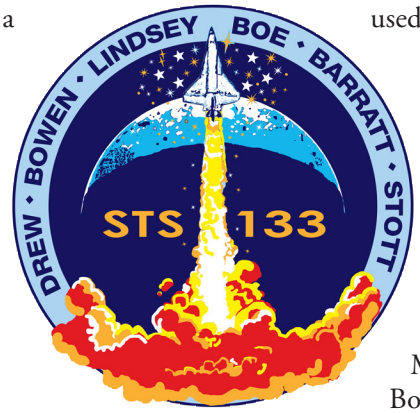
Cotton, an AI Signal Research Inc. employee, supports the Office of Strategic Analysis & Communications.

STS-133 *Continued from page 1*

teams have given their very best effort and brought us to the point where we're ready to launch STS-133 to the International Space Station," Cash said. "It's a job well done."

The launch date was announced Feb. 18, at the conclusion of the STS-133 Flight Readiness Review held at Kennedy. During the agency-level review, senior NASA and contractor managers assessed the risks associated with the mission and determined the shuttle's equipment, support systems and procedures are ready.

The mission will deliver the Permanent Multipurpose Module, a large, reusable pressurized element originally used to ferry cargo back and forth to the space station. It is 21 feet long and 15 feet in diameter, and was formerly known as the Leonardo Multipurpose Logistics Module. Engineers at the Marshall Center were responsible for developing and integrating the modifications to convert it from Leonardo to a permanent fixture for the orbiting facility. The module will be used as a storage area on the space station.



Also aboard Discovery will be Robonaut 2, the first human-like robot in space, and critical spare components for the orbiting complex. Robonaut 2 will become a permanent resident on the space station.

Commander Steve Lindsey will lead the six-member astronaut crew during the flight. He will be joined by Pilot Eric Boe and Mission Specialists Alvin Drew, Michael Barratt, Nicole Stott and Steve Bowen.

For more information about the STS-133 mission, visit http://www.nasa.gov/mission_pages/shuttle/shuttlemissions/sts133/index.html.

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Mentor

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Most are majoring in science, technology, engineering or mathematics, the so-called STEM curricula. And most will enjoy hands-on applications of their studies beyond any career expectations they gained in the classroom.

That's been the case for Ciara Britt, a sophomore studying mechanical engineering at the University of Alabama in Huntsville. Britt is currently an intern in the Engineering Directorate's Stage Systems Engineering & Integration Division, helping build and tear down mockups of test articles and hardware elements now in development at Marshall.

"I had had no hands-on experience like that in high school," she said, "so it's given me the chance to see how things are built, how to take them apart again, how to understand design elements and how they integrate.

"It's giving me so much more experience, enabling me to do research that is actually being applied toward something, and could be used for a NASA mission in the future," she added.

Dr. Frank Six, Marshall's university affairs officer and one of a team of NASA educators working to prepare a busy, valuable summer program for incoming students, said it's the goal of NASA and the Marshall Academic Affairs team to ensure every intern has an experience as exciting and rewarding as Britt's has been.

It could be the deciding factor in their future career choices, he said.

"Our key goal is work force development," Six said. "We seek the best and brightest from all across the country and stoke their passion – motivating them to pursue careers aligned with NASA and its industry and university partners."

Miller and Six look to the Marshall community to accomplish that goal. NASA's summer internship application window closes March 1. Engineers, scientists and other Marshall professionals centerwide are encouraged to review their summer project needs and help develop new internship opportunities.

Ciara Britt, a sophomore at the University of Alabama in Huntsville, is one of many Marshall Center interns this year.

The One Stop Shopping Initiative, or OSSI, at http://intern.nasa.gov makes that process simple. It is a NASA-wide integrated system for science and engineering mentors to post research and project descriptions, emphasizing the practical work involved in each internship. Students then can browse these opportunities, selecting from a variety of projects geared toward their field of study.

Selected interns will begin their summer experience at Marshall and other NASA field centers May 31.

With the countdown to the application deadline approaching, team members are encouraged to visit the One Stop Shopping Initiative site.

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